

REMARKS

In the Office Action dated May 21, 2007 Examiner Tolan has rejected Claims 1-3, 7, 11, 13-17 and 20 under 35 USC 102(b) as being anticipated by Hohwart. Reconsideration of this rejection is requested.

The office action fails to note Claims 1 and 20 include the limitation that the tap is "fluteless". In contrast, the tap of Hohwart is a fluted tap. This can most clearly be seen in Figure 4 where four flutes 34 are shown. Reference is made to page 3 of Hohwart in the first column at lines 17 and 18 *"longitudinally extending grooves 34 to present circumferentially directed cutting faces providing cutting edges"*.

A fluted tap forms a screw-thread by a cutting process. In contrast, the present invention forms a thread by a flow forming process (see page 5, lines 4 to 10 of the specification which reads:

"When the tap 10 is used to form a female screw-thread the thread is flow-formed rather than cut (as is the case with the fluted trapezoidal thread taps usually used). This gives a very good surface finish to the formed thread and good conformity to the thread defined on the tap. This is crucial for good mesh and efficiency").

The fluted tap of Hohwart is precisely the type of prior art tap recognized by the invention and the invention is novel and inventive over Hohwart by being "fluteless".

Claims 2, 3, 7, 11, and 13-17 all depend from Claim 1 either directly or indirectly. As such they contain all of the limitations of Claim 1 and the foregoing argument also applies to these dependant Claims.

In view of the foregoing reasons, the Applicant respectfully requests the rejection of Claims 1-3, 7, 11, 13-17 and 20 under 35 USC 102(b) as being anticipated by Hohwart be withdrawn.

Claims 4-6, 12, 18 and 19 are rejected under 35 USC 103(a) as being unpatentable over Hohwart in view of Beck. (3125772). As mentioned above, Hohwart does not disclose a "fluteless" tap but instead a "fluted" tap. Beck also shows a fluted tap. The flutes can be clearly seen in Figure 1 of Beck and in all of Figures 3, 4 and 5; please see column 2, lines 35 to 37: *"Four longitudinal flutes 30, best seen in Figures 3 to 5 extend over the entire length of the threaded portion and into part of the shank portion 22"*.

We are told that the tool operates by a cutting process, for instance column 3, lines 71 to 72: *"with each turn comprising four teeth each full revolution of the tap will initiate four chips in succession"*. Then at column 4, line 3: *"the very first tooth to cut into the material ...will cut a chip of triangular shape"*. Both Hohwart and Beck operate by a cutting operation rather than flow forming and thus both teach away from the present invention.

For the foregoing reasons the Applicant respectfully requests the rejection of Claims 4 to 6, 12, 18 and 19 under 35 USC 103(a) as being unpatentable over Hohwart in view of Beck be withdrawn.

Further, Claim 8 is rejected under 35 USC 103(a) as being unpatentable over Hohwart in view of Corrette. (4,666,348). The first point to note is that the document of Corrette addresses an entirely different problem to the problem addressed by the present invention and by the other two prior art documents of Hohwart and Beck. Whilst Hohwart and Beck, in common with the current invention, are for forming a female screw thread, Corrette describes the formation of a male screw thread on a fastener, an example of a fastener being shown at 31 in Figure 10 of

Corrette. The dies of Corrette are shown in Figures 1 and 2. The dies are brought together around the blank to form a thread fastener as can be seen in Figure 10. These form a thread suitable for a self-tapping screw and as such do not have radiused crests (see Figure 11) and the formed thread does not have dimensions suitable for a translational motion thread. The skilled man would not combine the teaching of Hohwart, which is for forming a female translational screw thread by a male tap with the teaching of Corrette, which teaches the use of rolling dies 10. It is noted that neither document discloses a fluteless male tap.

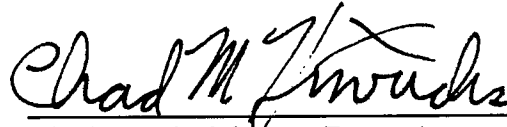
For the foregoing reasons the Applicant respectfully requests the rejection of Claim 8 under 35 USC 103(a) as being unpatentable over Hohwart in view of Corrette be withdrawn.

Finally, Claims 9 and 10 are rejected under 35 USC 103(a) as being unpatentable over Hohwart in view of Baubles (3,069,961). Baubles relates to the formation not of a female screw thread, but of a male screw thread in an externally threaded member. For instance, column 1, lines 9 to 11: "*This invention relates to an externally threaded member, such as a screw, bolt or other externally threaded stud or article*". Also in column 1, line 45: "*figure 1 is a fragmentary view in elevation of an externally threaded member*". Thus the skilled man would not think of combining Hohwart, which teaches the formation of female screw threads using a cutting technique with Baubles, which teaches the formation of a male screw thread and, it should be noted, a male screw thread of a form unsuitable for use as a translation thread, and more suited for use as a screw, bolt or other fastening article.

For the foregoing reasons the Applicant respectfully requests the rejection of Claims 9 and 10 under 35 USC 103(a) as being unpatentable over Hohwart in view of Baubles be withdrawn.

Should any other amendments be necessary to place the application in condition for a Notice of Allowance, Examiner Tolan is invited to call the undersigned at the below noted telephone number.

Respectfully submitted,

A handwritten signature in black ink, reading "Chad M. Hinrichs". The signature is written in a cursive style with a large, stylized "H".

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